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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/214,140 | 04/08/1999 | TAKEO KAWASE | P3299B | 5881 |
| 20178 | 7590 | 12/13/2004 | EXAMINER | |
| EPSON RESEARCH AND DEVELOPMENT INC INTELLECTUAL PROPERTY DEPT 150 RIVER OAKS PARKWAY, SUITE 225 SAN JOSE, CA 95134 | | | TRAN, DZUNG D | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2633 | |

DATE MAILED: 12/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/214,140

Applicant(s)

KAWASE ET AL

Examiner

Dzung D Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08/11/2004.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 63-71 and 74-79 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 78 and 79 is/are allowed.
- 6) ☒ Claim(s) 63-71 and 74-77 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 71 recites the limitation "said controlling means" in line 10. There is insufficient antecedent basis for this limitation in the claim.

Claim 78 recites the limitation "said controlling means" in line 10. There is insufficient antecedent basis for this limitation in the claim.

Claim 79 recites the limitation "said controlling means" in line 11. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 63-64, 69-71, 76 and 77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Funke U.S. patent no. 4,987,897 in view of Taylor U.S. patent no. 5,416,626.

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Regarding claim 63, Funke discloses a system intended for being at least partly implanted into a living body comprising:

a implanted pacemaker for detecting an internal state of a living body and for generating a signal representing the detected state (figure 1, element 10, col. 7, lines 38-54, col. 8, lines 24-62);

a transmitting means for transmitting light (figure 1, element 27, col. 6, lines 28, 34);

a receiving means for receiving and demodulating the light to extract the signal included in the light (figure 1, element 26, col. 6, lines 25, 29); and

a controlling means for receiving the extracted signal (figure 1, elements 11, 12, 13, 15, col. 6, lines 5-14). Funke differs from claim 63 of the present invention in that Funke does not specific disclose for transmitting light whose polarization plane (or state) is rotated according to the signal. Taylor discloses an optical communication device comprising: at least one transmitter 10 modulating a plane of polarization (e.g. second module 10c) of laser light, and then emitting a modulation result as a transmission signal (figure 1, column 2, lines 24-39) and at least one receiver (figure 1, element 11) selectively receiving light of a specific polarization state (figure 1, column 2, lines 9-10). At the time of the invention was made, it would have been obvious to a person of ordinary skill in the art to include the transmitter and receiver of Taylor in the system of Funke. One of ordinary skill in the art would have been motivated to do this for separating the wavelengths, therefore it reduces the cross talk between channels and reduces the polarization dependent loss (PDL) in the system (col. 3, lines 46-49).

Regarding claims 64 and 71, Funke discloses a system intended for being at least partly implanted into a living body comprising:

a controlling means for generating a control signal (figure 1, elements 16, 32, col. 6, lines 40-41);

a transmitting means for transmitting light (figure 1, element 35, col. 6, lines 43-44, 50);

a receiving means for receiving and demodulating the light to extract the control signal included in the light (figure 1, element 34, col. 6, lines 41-41); and

a implanted pacemaker (same as a physiological function assisting means) for assisting a function of a living body on the basis of the control signal (figure 1, element 10, col. 7, lines 38-54, col. 8, lines 24-62) and Taylor further discloses in figure 2, a second modulator and a polarization state adjuster is controlled by control signal from source 15 and detected data signal from receiver 11.

Regarding claims 69, 70, 76 and 77, Funke further discloses in figure 6, a display unit that displays information regarding a living body on the basis of the extracted signal (figure 6, elements 102, 104, col. 10, lines 15-48). Funke also discloses the detector is mounted in the implanted pacemaker (figure 1).

4. Claims 65-68 and 74-75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Funke U.S. patent no. 4,987,897 in view of Taylor U.S. patent no. 5,416,626 and further in view of Skagerlund U.S. patent no. 5,099,246.

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Regarding claims 65-68 and 74-75, as per claims above, Funke and Taylor disclose all the limitation except for transmitting means comprises a planar emission laser. Skagerlund discloses a transmitter comprising the laser emitter is planar polarized directly through the radiation source of the laser emitter (col. 1, lines 33-49). At the time of the invention was made, it would have been obvious to a person of ordinary skill in the art to include the planar emission laser of Skagerlund in the system of Funke and Taylor. One of ordinary skill in the art would have been motivated to do this for transmitting the polarized light signal in the polarization direction, therefore it reduce the cross talk between channels.

5. Claims 78 and 79 are allowed.

Response to Arguments

6. Applicant's arguments with respect to claims 63-71 and 74-79 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dzung D Tran whose telephone number is (571) 272-3025. The examiner can normally be reached on 9:00 AM - 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DT
11/28/2004

Hanh Phan
Hanh Phan
Primary Examiner
11/29/04